CEA ACTION PROPOSAL

Per California Code of Regulations, title 2, section 548.5, the following information will be posted to CalHR's Career Executive Assignment Action Proposals website for 30 calendar days when departments propose new CEA concepts or major revisions to existing CEA concepts. Presence of the department-submitted CEA Action Proposal information on CalHR's website does not indicate CalHR support for the proposal.

A. GENERAL INFORMATION

1. Date: Nov 8, 2022

2. Department: California Energy Commission

3. Organizational Placement (Division/Branch/Office Name)

Fuels and Transportation Division

4. CEA Position Title

ZEV Strategy, Planning, and Equitable Market Development

5. Summary of proposed position description and how it relates to the program's mission or purpose. (*2-3 sentences)*

The incumbent will be the lead for infrastructure strategy, planning, and equity. They will also lead grid resiliency and vehicle grid integration. Specifically, they will set broad investment plan strategies for the Investment Plan Update, workforce development, manufacturing, and economic stimulus investments. This includes regulation rulemakings and legislative matters. They will set policies, procedures, and strategy to advance the ZEV infrastructure market.

6. Reports to: (*Class Title/Level*)

Director of Fuels and Transportation Division

7. Relationship with Department Director (*Select one)*

☑ Member of department's Executive Management Team, and has frequent contact with director on a wide range of department-wide issues.

☐ Not a member of department's Executive Management Team but has frequent contact with the Executive Management Team on policy issues.

(*Explain*):

8. Organizational Level *(Select one)*

☐ 1st ☐ 2nd ☐ 3rd ☑ 4th ☐ 5th (mega departments only - 17,001+ allocated positions)

B. SUMMARY OF REQUEST

9. What are the duties and responsibilities of the CEA position? Be specific and provide examples.

The CEA will be the lead for zero-emission vehicle (ZEV) infrastructure strategy and market development, including grid reliability. Their duties and responsibilities include setting policies, standards, strategies, and oversight to accelerate the ZEV infrastructure market. This includes strategies and planning for the Investment Plan Update, economic stimulus investments such as in-state manufacturing and workforce development, and grid resiliency. They will be the lead for investments in these areas, regulation creation, and legislative matters. They will interact and collaborate with staff, the division director, executive director, commissioners, and the public.

California has continued to increase efforts to address the climate crisis, improve public health and air quality, support the California economy and in-state manufacturing, and equity. The state has recognized through the Budget Act of 2021 and the Budget Act of 2022 that investments in zero-emission vehicle infrastructure are critical to meeting state goals. With 50% of greenhouse gas emissions coming from the transportation sector, we must accelerate the transition away from combustion vehicles. This is required by law and state regulations and will be achieved through funding infrastructure deployment.

New regulations require 100% of new passenger car and truck sales to be zero-emission by 2035. Further, pursuant to EO N-79-20, the California truck and bus fleet must transition to full zero-emission operations. These regulations require an increased level of ZEV adoption meaning that FTD's work to deploy ZEV infrastructure will be ongoing and must accelerate. The lack of infrastructure and distribution grid readiness can become a barrier to mainstream adoption. New programs and strategies will be required to meet state budget requirements and will be needed to effectively deploy ZEV infrastructure funds. This requires extensive policy support, new program design, and oversight.

Vehicle Grid Integration: Program design is supported and informed through rigorous data collection, modeling, and analysis. This analysis is conducted by division staff in collaboration with stakeholders and national labs. Another new and complex role for FTD is to examine, analyze, model, and incorporate through funding programs vehicle-grid integration (VGI). VGI includes the strategies and technologies to alter the time, location, or power level of vehicle charging. This includes both light-duty passenger vehicles and MD/HD trucks and buses. The CEA will be responsible for setting policies in these areas. Grid reliability has been a strong focus for the state in recent years. The rolling blackouts in 2020 and more recent peaking grid conditions have made VGI a greater focus. Proper implementation of VGI will mitigate grid stress and will enhance grid resiliency if done right. It has the capability to be a demand response (DR) tool and even a generation tool with the proliferation of vehicle to grid (V2G) technologies. The deputy director will represent the division in legislative matters, including preparing testimony and engaging in hearings.

Demand Response (DR) Programs: The CEA will need to have a deep understanding of the market, technologies, and regulations. Regulations include rate design, real time pricing, DR programs, and interconnection. FTD will create a bidirectional inverter list which will require engineering rigor and interconnection knowledge to certify devices. Further, an understanding of automation, aggregation, and customer needs and behaviors will be paramount. DR programs have suffered from “fatigue” resulting in less customer responsiveness over time. New FTD programs can address this issue if properly designed with automation and software/hardware solutions.

Create/Implement New Regulations: The division is taking on an expanded and new role with regards to regulatory tasks, which will be in this CEA's portfolio. The division will initiate a rulemaking to implement a tire efficiency law. Regulation creation is new to FTD and will require new staff. In addition to the tire efficiency law that requires the CEC to create a regulation, more recently AB 2061 requires the CEC to create regulations on EV charging station reliability. This will require new regulations and an expanded understanding of reliability for both publicly funded and privately funded charging stations. A third regulation will be needed to collect utilization data and charger count information and potentially set a minimum reliability requirement for the state.

B. SUMMARY OF REQUEST (continued)

10. How critical is the program's mission or purpose to the department's mission as a whole? Include a description of the degree to which the program is critical to the department's mission.

- ☑ Program is directly related to department's primary mission and is critical to achieving the department's goals.
- ☐ Program is indirectly related to department's primary mission.
- ☐ Program plays a supporting role in achieving department's mission (i.e., budget, personnel, other admin functions).

Description:

The California Energy Commission's Fuels and Transportation Division is the lead agency in deploying zero-emission vehicle infrastructure to support the transition to electric and hydrogen vehicles. This includes data collection and analysis, new regulations, ensuring charging station reliability, and informed economic decision making.

It is the mission of the California Energy Commission to transition California to a zero-emission future. Transportation results in 50% of California's greenhouse gas emissions. A number of laws, executive orders, and state agency regulations require California to reduce harmful emissions from vehicle tailpipes.

California cannot meet its goals without a transition to electric vehicles and hydrogen vehicles. The Fuels and Transportation Division plays an essential role in meeting California's goals and laws through infrastructure investments but also through the underlying data, modeling, and analysis, and regulations.

See additional detail in response to Question 20.

B. SUMMARY OF REQUEST (continued)

11. Describe what has changed that makes this request necessary. Explain how the change justifies the current request. Be specific and provide examples.

The Fuels and Transportation Division (FTD) has historically deployed basic ZEV infrastructure to support on-road vehicles including passenger cars, trucks, and buses. FTD has also conducted analysis to inform infrastructure deployment and policy. It has made small investments in ZEV-related manufacturing, fuel production, and workforce development. This work has been supported by three division branches and several supporting units.

However, the division is in the process of significant growth in terms of responsibilities, more complex grant funding programs and strategies, funding levels, new reports and analysis, and a stronger emphasis on grid reliability. This will require a significant expansion of staff in terms of skillsets and numbers to support new responsibilities. With these new tasks, a significant increase in staff resources and managerial oversight are required to move electric and hydrogen vehicles from early adopters to mainstream acceptance. Further, infrastructure will be needed throughout California to ensure equitable access, as required by Senate Bill 1000.

A more complex and broad investment portfolio requires more oversight and expertise across several areas and an increased staff count to oversee and manage. Changed and expanded duties include vehicle grid integration, deeper analysis and modeling, new regulation design, and EV charging station reliability standards. These are complicated matters with varying stakeholder positions that must be taken into account. A well founded and clear set of policy direction is needed to support the market.

C. ROLE IN POLICY INFLUENCE

12. Provide 3-5 specific examples of policy areas over which the CEA position will be the principle policy maker. Each example should cite a policy that would have an identifiable impact. Include a description of the statewide impact of the assigned program.

The deputy director will implement policies to administer new, expanded, and more complex policy areas including vehicle-grid integration, grid reliability and resiliency, and investments to support the California economy as it relates to ZEV manufacturing and workforce development. These policies are articulated in EO N-79-20, the Budget Act of 2021, the Budget Act of 2022, and several pieces of legislation and regulations. The CEC is specifically named and tasked with deploying ZEV infrastructure to meet California's climate crisis and public health goals, and to reduce greenhouse gas emissions from the transportation sector. The CEA will represent the division in front of legislators, including responding to inquiries, preparing testimony, and engaging in hearings. The deputy director will focus on the following policy areas:

Vehicle Grid Integration: The CEC is key in setting policies for vehicle-grid integration and vehicle to grid (V2G) functionality. These grid integration measures are important now and even more so into the future as ZEV adoption increases. The increased load can impact the distribution grid if not managed properly. Policy decisions on grant funding opportunities and charging station requirements, such as ISO 15118, are needed. Policy must be set on communication and technology standards. If done properly the impact will be positive because the grid will be more efficient. If not done properly the impact will be an increase in peak demand. Further, there will be interoperability problems with certain vehicle types.

ZEV Market Enabling Investments: The CEA will also set policy and direction for investments related to the ZEV economy in California. Within the CEA's portfolio they will oversee and set strategy for investments in ZEV and ZEV-related manufacturing, workforce development, and other equity investments. These are required by the Budget Act of 2021. The state will be positively impacted by these investments and continue to be a market leader. Electric vehicles were the state's number one export in 2020.

Create/Implement New Regulatory Requirements: The CEA will oversee and set policy on the reliability regulations as well as other regulatory and legislative matters. FTD is taking on an expanded and new role with regards to regulatory tasks. The division will initiate a rulemaking to implement a tire efficiency law. In addition to the tire efficiency law that requires the CEC to create a regulation, more recently AB 2061 requires the CEC to create regulations on EV charging station reliability. This will require new regulations and an expanded understanding of reliability for both publicly funded and privately funded charging stations. A third regulation will be needed to collect utilization data and charger count information and potentially set a minimum reliability requirement for the state. The implementation of these regulations will provide a positive impact because taxpayer investments in infrastructure will result in operational devices and a positive driver experience.

C. ROLE IN POLICY INFLUENCE (continued)

13. What is the CEA position's scope and nature of decision-making authority?

The CEA's scope includes policy related to vehicle-grid integration, load management, overall distribution grid resiliency, regulatory proceedings, and in-state economic development.

They will be the lead decision-maker related to planning, economic development grant funding programs in manufacturing and workforce, and oversee and make decisions on regulatory matters. This includes incorporating stakeholder input, compliance with state and federal laws and regulations, and agreement oversight. They will be the decision-maker with regards to regulation, planning, and market development decisions. While they will collaborate with other departments, such as the Chief Counsel's Office, they will be making business decisions for the division.

Impacted stakeholders include electric utilities, grid management companies and technology providers, California's labor workforce and in-state manufacturers, and all site hosts that oversee reliability and maintenance of their infrastructure. Positive outcomes include a stronger California economy and a trained workforce of the future. Further, good policy will make California the leader in companies that provide grid management offerings to customers.

14. Will the CEA position be developing and implementing new policy, or interpreting and implementing existing policy? How?

Both. They will implement and interpret existing policies and laws. California has desired to reduce emissions from vehicles and transportation for several years. There are existing policies and laws that have set high-level policy goals which should continue to be implemented and interpreted to achieve the greatest benefits to the state. One such policy is to proactively integrate the new vehicle load with the grid. New technologies and utility rate design will allow the CEA to refine and implement policy to create broader access and implementation. New policies include a recent focus pursuant to AB 2061 to ensure charging station reliability. A new regulatory rulemaking must be implemented to ensure higher station reliability.